

## SEQUENCE LISTING

<110> Garvan Institute of Medical Research

5 <120> Method of diagnosing colorectal cancer and reagents therefor

<130> 121788/MRO

<150> AU 2004900340

10 <151> 2002-01-23

<150> US 60/540662

<151> 2002-01-29

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<170> PatentIn version 3.1

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17

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	Gln	Thr	Glu	Ser	Val	Thr	Ala	Phe	Met	Gly	Asp	Thr	Val	Leu	Leu	Lys	145	150	155	160
	Cys	Glu	Val	Ile	Gly	Glu	Pro	Met	Pro	Thr	Ile	His	Trp	Gln	Lys	Asn	165	170	175	
45	Gln	Gln	Asp	Leu	Thr	Pro	Ile	Pro	Gly	Asp	Ser	Arg	Val	Val	Val	Leu	180	185	190	
	Pro	Ser	Gly	Ala	Leu	Gln	Ile	Ser	Arg	Leu	Gln	Pro	Gly	Asp	Ile	Gly	195	200	205	
50	Ile	Tyr	Arg	Cys	Ser	Ala	Arg	Asn	Pro	Ala	Ser	Ser	Arg	Thr	Gly	Asn	210	215	220	
	Glu	Ala	Glu	Val	Arg	Ile	Leu	Ser	Asp	Pro	Gly	Leu	His	Arg	Gln	Leu	225	230	235	240
	Tyr	Phe	Leu	Gln	Arg	Pro	Ser	Asn	Val	Val	Ala	Ile	Glu	Gly	Lys	Asp	245	250	255	
60	Ala	Val	Leu	Glu	Cys	Cys	Val	Ser	Gly	Tyr	Pro	Pro	Pro	Ser	Phe	Thr	260	265	270	
	Trp	Leu	Arg	Gly	Glu	Glu	Val	Ile	Gln	Leu	Arg	Ser	Lys	Lys	Tyr	Ser	275	280	285	

Leu Leu Gly Gly Ser Asn Leu Leu Ile Ser Asn Val Thr Asp Asp Asp  
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 305 310 315 320  
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 30 Arg Leu Glu Ser Ser Ser His Tyr Val Ile Ser Leu Lys Ala Phe Asn  
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 45 Ala Asp Asn Ser Val Pro Lys Asn Gln Lys Thr Ser Glu Val Arg Leu  
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 930 935 940  
 60 Thr Ser Ala Pro Lys Asp Phe Thr Val Ile Thr Arg Glu Gly Lys Pro  
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	Ile Thr Ala Tyr Ile Leu Phe Tyr Thr Leu Asp Lys Asn Ile Pro Ile 980 985 990		
5	Asp Asp Trp Ile Met Glu Thr Ile Ser Gly Asp Arg Leu Thr His Gln 995 1000 1005		
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	Leu Ile Asp Arg Ser Thr Leu Asn Glu Pro Pro Ile Gly Gln Met 1070 1075 1080		
25	His Pro Pro His Gly Ser Val Thr Pro Gln Lys Asn Ser Asn Leu 1085 1090 1095		
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30	Val Val Ile Val Ala Val Ile Cys Thr Arg Arg Ser Ser Ala Gln 1115 1120 1125		
	Gln Arg Lys Lys Arg Ala Thr His Ser Ala Gly Lys Arg Lys Gly 1130 1135 1140		
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	Ala Gly Arg Asp Ser Pro Ile Gln Ser Cys Gln Asp Leu Thr Pro 1175 1180 1185		
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	Ser His Ser Gly Gln Asp Thr Glu Glu Ala Gly Ser Ser Met Ser 1205 1210 1215		
50	Thr Leu Glu Arg Ser Leu Ala Ala Arg Arg Ala Pro Arg Ala Lys 1220 1225 1230		
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	Ser Ala Ile Pro Val Pro Thr Leu Glu Ser Ala Gln Tyr Pro Gly 1250 1255 1260		
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	Leu Arg Pro Val Pro Phe Pro Thr Leu Ser Val Asp Arg Gly Phe 1280 1285 1290		

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 5 Gln Pro Pro Met Leu Pro Pro Ser Gln Pro Glu His Ser Ser Ser  
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 10 Thr His Pro Leu Arg Ser Phe Ala Asn Pro Leu Leu Pro Pro Pro  
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 Asp Gln Leu Leu Lys Gln Val Glu Ala Leu Lys Met Glu Asn Ser Asn  
 10 15 20  
 60 ctt cga caa gag cta gaa gat aat tcc aat cat ctt aca aaa ctg gaa 152  
 Leu Arg Gln Glu Leu Glu Asp Asn Ser Asn His Leu Thr Lys Leu Glu  
 25 30 35  
 act gag gca tct aat atg aag gaa gta ctt aaa caa cta caa gga agt 200

	Thr	Glu	Ala	Ser	Asn	Met	Lys	Glu	Val	Leu	Lys	Gln	Leu	Gln	Gly	Ser	
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	Ile	Glu	Asp	Glu	Ala	Met	Ala	Ser	Ser	Gly	Gln	Ile	Asp	Leu	Leu	Glu	
	55					60					65					70	
10	cgt	ctt	aaa	gag	ctt	aac	tta	gat	agc	agt	aat	ttc	cct	gga	gta	aaa	296
	Arg	Leu	Lys	Glu	Leu	Asn	Leu	Asp	Ser	Ser	Asn	Phe	Pro	Gly	Val	Lys	
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15	ctg	cgg	tca	aaa	atg	tcc	ctc	cgt	tct	tat	gga	agc	cgg	gaa	gga	tct	344
	Leu	Arg	Ser	Lys	Met	Ser	Leu	Arg	Ser	Tyr	Gly	Ser	Arg	Glu	Gly	Ser	
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	Val	Ser	Ser	Arg	Ser	Gly	Glu	Cys	Ser	Pro	Val	Pro	Met	Gly	Ser	Phe	
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	Pro	Arg	Arg	Gly	Phe	Val	Asn	Gly	Ser	Arg	Glu	Ser	Thr	Gly	Tyr	Leu	
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	Glu	Glu	Leu	Glu	Lys	Glu	Arg	Ser	Leu	Leu	Leu	Ala	Asp	Leu	Asp	Lys	
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	Lys	Arg	Ile	Asp	Ser	Leu	Pro	Leu	Thr	Glu	Asn	Phe	Ser	Leu	Gln	Thr	
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	Asp	Met	Thr	Arg	Arg	Gln	Leu	Glu	Tyr	Glu	Ala	Arg	Gln	Ile	Arg	Val	
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	Ala	Met	Glu	Glu	Gln	Leu	Gly	Thr	Cys	Gln	Asp	Met	Glu	Lys	Arg	Ala	
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	Gln	Arg	Arg	Ile	Ala	Arg	Ile	Gln	Gln	Ile	Glu	Lys	Asp	Ile	Leu	Arg	
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	Ile	Arg	Gln	Leu	Leu	Gln	Ser	Gln	Ala	Thr	Glu	Ala	Glu	Arg	Ser	Ser	
					235					240					245		
65	cag	aac	aag	cat	gaa	acc	ggc	tca	cat	gat	gct	gag	cgg	cag	aat	gaa	824
	Gln	Asn	Lys	His	Glu	Thr	Gly	Ser	His	Asp	Ala	Glu	Arg	Gln	Asn	Glu	
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70	ggt	caa	gga	gtg	gga	gaa	atc	aac	atg	gca	act	tct	ggt	aat	ggt	cag	872
	Gly	Gln	Gly	Val	Gly	Glu	Ile	Asn	Met	Ala	Thr	Ser	Gly	Asn	Gly	Gln	
			265					270					275				
75	ggt	tca	act	aca	cga	atg	gac	cat	gaa	aca	gcc	agt	gtt	ttg	agt	tct	920
	Gly	Ser	Thr	Thr	Arg	Met	Asp	His	Glu	Thr	Ala	Ser	Val	Leu	Ser	Ser	
		280					285					290					
80	agt	agc	aca	cac	tct	gca	cct	cga	agg	ctg	aca	agt	cat	ctg	gga	acc	968

	Ser	Ser	Thr	His	Ser	Ala	Pro	Arg	Arg	Leu	Thr	Ser	His	Leu	Gly	Thr	
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	Lys	Val	Glu	Met	Val	Tyr	Ser	Leu	Leu	Ser	Met	Leu	Gly	Thr	His	Asp	
					315					320					325		
10	aag	gat	gat	atg	tcg	cga	act	ttg	cta	gct	atg	tct	agc	tcc	caa	gac	1064
	Lys	Asp	Asp	Met	Ser	Arg	Thr	Leu	Leu	Ala	Met	Ser	Ser	Ser	Gln	Asp	
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15	agc	tgt	ata	tcc	atg	cga	cag	tct	gga	tgt	ctt	cct	ctc	ctc	atc	cag	1112
	Ser	Cys	Ile	Ser	Met	Arg	Gln	Ser	Gly	Cys	Leu	Pro	Leu	Leu	Ile	Gln	
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	Leu	Leu	His	Gly	Asn	Asp	Lys	Asp	Ser	Val	Leu	Leu	Gly	Asn	Ser	Arg	
		360					365				370						
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	Gly	Ser	Lys	Glu	Ala	Arg	Ala	Arg	Ala	Ser	Ala	Ala	Leu	His	Asn	Ile	
	375				380					385						390	
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	Ile	His	Ser	Gln	Pro	Asp	Asp	Lys	Arg	Gly	Arg	Arg	Glu	Ile	Arg	Val	
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	Leu	His	Leu	Leu	Glu	Gln	Ile	Arg	Ala	Tyr	Cys	Glu	Thr	Cys	Trp	Glu	
			410					415						420			
40	tgg	cag	gaa	gct	cat	gaa	cca	ggc	atg	gac	cag	gac	aaa	aat	cca	atg	1352
	Trp	Gln	Glu	Ala	His	Glu	Pro	Gly	Met	Asp	Gln	Asp	Lys	Asn	Pro	Met	
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	Lys	Leu	Ser	Phe	Asp	Glu	Glu	His	Arg	His	Ala	Met	Asn	Glu	Leu	Gly	
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	Gly	Leu	Thr	Asn	Asp	His	Tyr	Ser	Ile	Thr	Leu	Arg	Arg	Tyr	Ala	Gly	
			490						495					500			
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	Met	Ala	Leu	Thr	Asn	Leu	Thr	Phe	Gly	Asp	Val	Ala	Asn	Lys	Ala	Thr	
			505					510					515				
70	cta	tgc	tct	atg	aaa	ggc	tgc	atg	aga	gca	ctt	gtg	gcc	caa	cta	aaa	1640
	Leu	Cys	Ser	Met	Lys	Gly	Cys	Met	Arg	Ala	Leu	Val	Ala	Gln	Leu	Lys	
		520					525					530					
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	Leu	Ser	Trp	Arg	Ala	Asp	Val	Asn	Ser	Lys	Lys	Thr	Leu	Arg	Glu	Val	
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	Gly	Ser	Leu	Asp	Ser	Ser	Arg	Ser	Glu	Lys	Asp	Arg	Ser	Leu	Glu	Arg	
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	Glu	Arg	Gly	Ile	Gly	Leu	Gly	Asn	Tyr	His	Pro	Ala	Thr	Glu	Asn	Pro	
	855					860					865					870	
	gga	act	tct	tca	aag	cga	ggg	ttg	cag	atc	tcc	acc	act	gca	gcc	cag	2696
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	Ile	Ala	Lys	Val	Met	Glu	Glu	Val	Ser	Ala	Ile	His	Thr	Ser	Gln	Glu	
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	Asp	Arg	Ser	Ser	Gly	Ser	Thr	Thr	Glu	Leu	His	Cys	Val	Thr	Asp	Glu	
			905					910					915				
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	Arg	Asn	Ala	Leu	Arg	Arg	Ser	Ser	Ala	Ala	His	Thr	His	Ser	Asn	Thr	
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	Tyr	Asn	Phe	Thr	Lys	Ser	Glu	Asn	Ser	Asn	Arg	Thr	Cys	Ser	Met	Pro	
	935					940					945				950		
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	Tyr	Ala	Lys	Leu	Glu	Tyr	Lys	Arg	Ser	Ser	Asn	Asp	Ser	Leu	Asn	Ser	
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	Val	Ser	Ser	Ser	Asp	Gly	Tyr	Gly	Lys	Arg	Gly	Gln	Met	Lys	Pro	Ser	
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45	att	gaa	tcc	tat	tct	gaa	gat	gat	gaa	agt	aag	ttt	tgc	agt	tat	ggg	3032
	Ile	Glu	Ser	Tyr	Ser	Glu	Asp	Asp	Glu	Ser	Lys	Phe	Cys	Ser	Tyr	Gly	
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	Gln	Tyr	Pro	Ala	Asp	Leu	Ala	His	Lys	Ile	His	Ser	Ala	Asn	His		
		1000					1005					1010					
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	Met	Asp	Asp	Asn	Asp	Gly	Glu	Leu	Asp	Thr	Pro	Ile	Asn	Tyr	Ser		
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	Leu	Lys	Tyr	Ser	Asp	Glu	Gln	Leu	Asn	Ser	Gly	Arg	Gln	Ser	Pro		
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	Ser	Gln	Asn	Glu	Arg	Trp	Ala	Arg	Pro	Lys	His	Ile	Ile	Glu	Asp		
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	Glu Ile	Lys Gln	Ser Glu	Gln Arg	Gln Ser	Arg Asn	Gln Ser	Thr		
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	Thr Tyr	Pro Val	Tyr Thr	Glu Ser	Thr Asp	Asp Lys	His Leu	Lys		
	1075			1080		1085				
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	1090			1095		1100				
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	Ser Arg	Gly Ala	Asn Gly	Ser Glu	Thr Asn	Arg Val	Gly Ser	Asn		
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	cat gga	att aat	caa aat	gta agc	cag tct	ttg tgt	caa gaa	gat	3437	
	His Gly	Ile Asn	Gln Asn	Val Ser	Gln Ser	Leu Cys	Gln Glu	Asp		
	1120			1125		1130				
20	gac tat	gaa gat	gat aag	cct acc	aat tat	agt gaa	cgt tac	tct	3482	
	Asp Tyr	Glu Asp	Asp Lys	Pro Thr	Asn Tyr	Ser Glu	Arg Tyr	Ser		
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25	gaa gaa	gaa cag	cat gaa	gaa gaa	gaa gag	aga cca	aca aat	tat agc	3527	
	Glu Glu	Glu Gln	His Glu	Glu Glu	Glu Glu	Arg Pro	Thr Asn	Tyr Ser		
	1150			1155		1160				
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	Ile Lys	Tyr Asn	Glu Glu	Lys Arg	His Val	Asp Gln	Pro Ile	Asp		
	1165			1170		1175				
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	Tyr Ser	Leu Lys	Tyr Ala	Thr Asp	Ile Pro	Ser Ser	Gln Lys	Gln		
	1180			1185		1190				
	tca ttt	tca ttc	tca aag	agt tca	tct gga	caa agc	agt aaa	acc	3662	
	Ser Phe	Ser Phe	Ser Lys	Ser Ser	Ser Gly	Gln Ser	Ser Lys	Thr		
	1195			1200		1205				
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	Glu His	Met Ser	Ser Ser	Ser Glu	Asn Thr	Ser Thr	Pro Ser	Ser		
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	Asn Ala	Lys Arg	Gln Asn	Gln Leu	His Pro	Ser Ser	Ala Gln	Ser		
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	Arg Ser	Gly Gln	Pro Gln	Lys Ala	Ala Thr	Cys Lys	Val Ser	Ser		
	1240			1245		1250				
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	Ile Asn	Gln Glu	Thr Ile	Gln Thr	Tyr Cys	Val Glu	Asp Thr	Pro		
	1255			1260		1265				
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	Ile Cys	Phe Ser	Arg Cys	Ser Ser	Leu Ser	Ser Ser	Leu Ser	Ala		
	1270			1275		1280				
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	Glu Asp	Glu Ile	Gly Cys	Asn Gln	Thr Thr	Gln Glu	Ala Asp	Ser		
	1285			1290		1295				
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	Arg	Ser	Ala	Glu	Asp	Pro	Val	Ser	Glu	Val	Pro	Ala	Val	Ser	Gln	
	1315						1320					1325				
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	Glu	His	Tyr	Val	Gln	Glu	Thr	Pro	Leu	Met	Phe	Ser	Arg	Cys	Thr	
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	Ser	Val	Ser	Ser	Leu	Asp	Ser	Phe	Glu	Ser	Arg	Ser	Ile	Ala	Ser	
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	1405						1410					1415				
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	Ser	Arg	Ser	Lys	Thr	Pro	Pro	Pro	Pro	Pro	Gln	Thr	Ala	Gln	Thr	
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	Glu	Ser	Gly	Pro	Lys	Gln	Ala	Ala	Val	Asn	Ala	Ala	Val	Gln	Arg	
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	Val	Gln	Val	Leu	Pro	Asp	Ala	Asp	Thr	Leu	Leu	His	Phe	Ala	Thr	
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	Glu	Ser	Thr	Pro	Asp	Gly	Phe	Ser	Cys	Ser	Ser	Ser	Leu	Ser	Ala	
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	Leu	Ser	Leu	Asp	Glu	Pro	Phe	Ile	Gln	Lys	Asp	Val	Glu	Leu	Arg	
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	Ile	Met	Pro	Pro	Val	Gln	Glu	Asn	Asp	Asn	Gly	Asn	Glu	Thr	Glu	
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	Glu	Lys	Thr	Ile	Asp	Ser	Glu	Lys	Asp	Leu	Leu	Asp	Asp	Ser	Asp	
	1555						1560					1565				
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	Asp	Asp	Asp	Ile	Glu	Ile	Leu	Glu	Glu	Cys	Ile	Ile	Ser	Ala	Met	
	1570						1575					1580				
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	Pro	Thr	Lys	Ser	Ser	Arg	Lys	Ala	Lys	Lys	Pro	Ala	Gln	Thr	Ala	
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	His	Val	Ser	Phe	Thr	Pro	Gly	Asp	Asp	Met	Pro	Arg	Val	Tyr	Cys	
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	Asp	Leu	Thr	Ile	Glu	Ser	Pro	Pro	Asn	Glu	Leu	Ala	Ala	Gly	Glu	
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	Glu	Glu	Gly	Asp	Ile	Leu	Ala	Glu	Cys	Ile	Asn	Ser	Ala	Met	Pro	
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	Gln	Val	Gln	Gln	Ala	Ser	Ala	Ser	Ser	Ser	Ala	Pro	Asn	Lys	Asn	
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	Asp	Ser	Lys	Asn	Asn	Leu	Asn	Ala	Glu	Arg	Val	Phe	Ser	Asp	Asn	
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	Lys	Asp	Ser	Lys	Lys	Gln	Asn	Leu	Lys	Asn	Asn	Ser	Lys	Asp	Phe	
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	Asp	Asp	Asp	Val	Asp	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Leu	Arg	Lys	
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	Ala	Lys	Glu	Asn	Lys	Glu	Ser	Glu	Ala	Lys	Val	Thr	Ser	His	Thr	
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	1900						1905					1910				
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	1960						1965					1970				
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	1975						1980					1985				
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	2005						2010					2015				
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	Ser	Glu	Asp	Asp	Leu	Leu	Gln	Glu	Cys	Ile	Ser	Ser	Ala	Met	Pro	
	2035						2040					2045				
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 35 40 45  
 Lys Gln Leu Gln Gly Ser Ile Glu Asp Glu Ala Met Ala Ser Ser Gly  
 50 50 55 60  
 Gln Ile Asp Leu Leu Glu Arg Leu Lys Glu Leu Asn Leu Asp Ser Ser  
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 Asn Phe Pro Gly Val Lys Leu Arg Ser Lys Met Ser Leu Arg Ser Tyr  
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 Gly Ser Arg Glu Gly Ser Val Ser Ser Arg Ser Gly Glu Cys Ser Pro  
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 60 Val Pro Met Gly Ser Phe Pro Arg Arg Gly Phe Val Asn Gly Ser Arg  
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 Glu Ser Thr Gly Tyr Leu Glu Glu Leu Glu Lys Glu Arg Ser Leu Leu  
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Leu Ala Asp Leu Asp Lys Glu Glu Lys Glu Lys Asp Trp Tyr Tyr Ala  
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Val Asp Cys Glu Met Tyr Gly Leu Thr Asn Asp His Tyr Ser Ile Thr  
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5	Asp Arg Ser Leu Glu Arg Glu Arg Gly Ile Gly Leu Gly Asn Tyr His		
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	Arg Thr Cys Ser Met Pro Tyr Ala Lys Leu Glu Tyr Lys Arg Ser Ser		
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	Lys Phe Cys Ser Tyr Gly Gln Tyr Pro Ala Asp Leu Ala His Lys Ile		
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